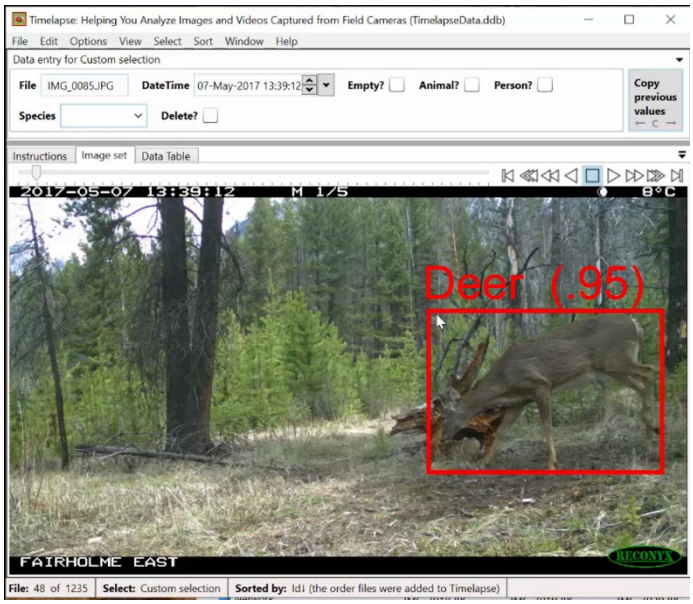
Automated Image Recognition for Wildlife Camera Traps: Making it Work for You

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You may have heard about applying automated image recognition to wildlife camera trap images. The basic idea is that an image recognizer will automatically analyze your images to locate and classify the wildlife species captured within each image. When recognition succeeds, it correctly detects and identifies whether animals are in an image, along with a classification of each detected animal. Various academic papers report what appears to be excellent recognition performance, some in the 90%+ correctness range in detecting wildlife and identifying the correct species. This may make you believe that you should now apply an image recognition system to automatically classify the (possibly) millions of camera trap images you have collected, as the time and cost savings can be enormous. Yet before you do, you should be aware of the nuances of applying recognition to your images. This includes understanding why recognition on your own images may be less than the reported performance, knowing where recognition will likely succeed or fail, and how to adjust your workflow to include a 'human in the loop' to make best use of recognition predictions. The presentation discusses these points, where it illustrates a workflow using the freely available Timelapse image analyser for camera traps (http://saul.cpsc.ucalgary.ca/timelapse/), which in turn incorporates recognition results produced by the Microsoft Megadetector https://github.com/microsoft/CameraTraps/blob/master/collaborations.md .

A full paper describing the contents of the talk is available as:

- Greenberg, S. (2020) *Automated Image Recognition for Wildlife Camera Traps: Making it Work for You.* Technical report, Prism University of Calgary's Digital Repository http://hdl.handle.net/1880/112416, University of Calgary, Calgary, Alberta, Canada. August 21.